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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 08/974,179      | 11/19/1997  | MING LI              | 129249-2            | 7920             |

7590 07/20/2004

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EXAMINER

DEXTER, CLARK F

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3724

DATE MAILED: 07/20/2004

21

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

08/974,179

Applicant(s)

LI ET AL.

Examiner

Clark F. Dexter

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Ch

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-45 is/are pending in the application.
- 4a) Of the above claim(s) 6-9 and 18-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10 and 12-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The response filed on December 20, 2001 has been entered. The indicated allowability of the claims is withdrawn in view of the newly discovered reference(s) to Sano et al., pn 5,235,881. Rejections based on the newly cited reference(s) follow. As communicated in a brief telephone conversation with applicant's attorney, Mr. Alan Towner, the delay in this Office action is regretted. Accordingly, this Office action is being made **non-final**.

### *Drawings*

2. The proposed drawing correction for Figure 4 filed on December 20, 2001 has been **approved**. A replacement drawing for this figure is required in response to this Office action.

### ***Claim Rejections - 35 USC § 102/103***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 10 and are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sano et al., pn 5,235,881.

Claim 1

Sano discloses a method of trimming aluminum sheet (e.g., see Figures 5 and 14) with every process step of the claimed invention including:

securing the aluminum sheet (e.g., described as "metallic workpiece in the form of a strip 6" in column 7, lines 43-44 for Figure 5; a workpiece sheet 64 for in column 4, lines 4-6 for Figure 14; wherein the invention is directed to workpiece sheets "made of metallic material such as ... aluminum" as described in column 2, lines 12-13) in a die (e.g., 18 in Figure 5; 62 in Figure 14) adjacent a cutting blade (wherein the cutting blade is discloses as a straight-edged punch - e.g., 11 in Figure 5; 61 in Figure 14) at a cutting angle of from about 10 to about 30 degrees measured from a plane perpendicular to a cutting direction of the cutting blade (e.g., see Figures 5 and 14) and with a cutting blade clearance of at least 5 percent of the thickness of the aluminum sheet measured between the blade and the die (e.g., see Figures 4, 10 and 12); and

trimming the aluminum sheet at the cutting angle and with the cutting blade clearance to thereby produce a trimmed aluminum sheet with substantially no slivers.

Claim 10

Sano discloses a method of trimming aluminum sheet (e.g., see Figures 5 and 14) with every process step of the claimed invention including:

securing the aluminum sheet (e.g., described as "metallic workpiece in the form of a strip 6" in column 7, lines 43-44 for Figure 5; a workpiece sheet 64 for in column 4, lines 4-6 for Figure 14; wherein the invention is directed to workpiece sheets "made of metallic material such as ... aluminum" as described in column 2, lines 12-13) between a die (e.g., 18 in Figure 5; 62 in Figure 14) and a pad (e.g., 9 in Figure 5; 63 in Figure 14) at a cutting angle of from about 10 to about 30 degrees adjacent a cutting blade (wherein the cutting blade is discloses as a straight-edged punch - e.g., 11 in Figure 5; 61 in Figure 14) wherein the cutting angle is measured from a plane perpendicular to a cutting direction of the cutting blade (e.g., see Figures 5 and 14), and with a cutting blade clearance of at least about 5 percent of the thickness of the aluminum sheet measured between the blade and the die (e.g., see Figures 4, 10 and 12); and

trimming the aluminum sheet at the cutting angle and with the cutting blade clearance to thereby produce a trimmed aluminum sheet with substantially no slivers.

All Claims

Further regarding claims 1, 2, 4, 10 and 12, it is respectfully submitted that Sano teaches one having ordinary skill in the art that a cutting angle in the range of approximately 10 to 30 degrees is used. However, Sano is substantially silent as to the specific cutting angle (other than a description that the die block top surface is "inclined

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at a suitable small angle with respect to the horizontal direction" as described in column 9, lines 49-52).

In the alternative, if it is argued that Sano does not disclose the specific cutting angle, the Examiner respectfully submits that to select a cutting angle in the range of 10-30 degrees would be the mere discovery of the optimum or workable ranges within the general conditions of the prior art by routine experimentation and therefore obvious to one of ordinary skill in the art.

Regarding claims 3, 5, 16 and 17, Sano does not disclose a specific edge radius. However, it is respectfully submitted that Sano teaches a cutting tool with substantially no edge radius to one of ordinary skill in the art. Thus, it is believed that the maximum radii set forth in these claims is met by Sano.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clark F. Dexter whose telephone number is (703)308-1404. The examiner can be reached Monday through Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on (703)308-1082. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Clark F. Dexter**  
**Primary Examiner**  
**Art Unit 3724**

cf  
July 19, 2004